1.1.1
Pasco Landfill

DEC 2 4 1986

M/S 525

Savage and Sons
251 Dietrich Road
Pasco, Washington 99301

Dear Mr. Savage:

The purpose of this letter is to provide you with the results from the Environmental Protection Agency's (EPA) sample of your drinking water well. The sample was taken on October 22, 1986. EPA analyzed the sample for 150 chemical compounds. According to EPA's regional toxicologist, the results show that all of the chemical concentrations are at levels which do not pose an unacceptable health risk.

Most of the chemicals tested for were not detected in the water sample. The chemicals that were detected are listed on the attached sheet. Chromium has been estimated in your sample at 50 ug/l, but this level is below that which our laboratory can quantify with assurance. The current drinking water standard is 50 ug/l, however, EPA has proposed to change the standard to 120 ug/l. We believe it is important to first resample for chromium to verify its concentration, then determine if this concentration is a health concern.

You should also know that there were laboratory problems in analyzing for lead, so we do not know the quantity of lead in the sample. Finally, note that the water in your area is generally high in sodium, and persons on a sodium-restricted diet should be aware of this.

EPA believes it is important to make sure these levels do not increase over time. With your permission, EPA plans to resample the well next year. We will be contacting you again in the next few months to take additional samples.

Please telephone Stan Vendetti at the Benton-Franklin County Health District at (509) 943-2614, or me at (206) 442-2712 if you have any questions regarding this information. Thank you for your cooperation in this effort.

Sincerely,

Lori Cohen
Superfund Site Manager

bcc: Stan Vendetti
Flora Goldstein
Bob Kievit
Marcia Knadle
Leigh Woodruff
John Zillich
Michael Watson

Enclosure

Sample Location: Savage and Sons

Sample Date: October 22, 1986

COMPOUNDS DETECTED

Chemical Name	Level Detected	Federal guideline or standard
Barium	104 ug/l	1000 ug/l
Zinc	27 ug/l (estimated)	5000 ug/l
Iron	49 ug/l (estimated)	300 ug/l
Chromium	50 ug/l (estimated)	50 ug/l - current standard
Chromium		120 ug/l - proposed change
Calcium	81,200 ug/l (estimated)	No standard exists**
Magnesium	26,600 ug/l	No standard exists**
Potassium	9,260 ug/l (estimated)	No standard exists**
Sodium	51,400 ug/l (estimated)	No standard exists**
Vanadium	13 ug/l	No standard exists**

* ug/l = micrograms per liter (parts per billion)

** For these compounds for which there is no standard, EPA's regional toxicologist believes these levels do not pose an unacceptable health risk.

DEC 24 1986

M/S 525

Al Yenney
900 North Avery
Pasco, Washington 99301

Dear Mr. Yenney:

The purpose of this letter is to provide you with the results from the Environmental Protection Agency's (EPA) sample of your drinking water wells. The samples were taken on October 22, 1986. EPA analyzed the sample for 150 chemical compounds. According to EPA's regional toxicologist, the results show that the chemical concentrations are at levels which do not pose an unacceptable health risk.

Most of the chemicals tested for were not detected in the water samples. The chemicals that were detected are listed on the attached sheets.

You should know that there were laboratory problems in analyzing for lead, so we do not know the quantity of lead in the samples. In your new well, there was lead detected at 12 ug/l; but this data is of poor quality and may be a conservative estimate.

Tetrachloroethene (old well) and 1, 1, 1 trichloroethene (new well) are animal carcinogens and have been tentatively identified in your samples, but at levels below those which our laboratory can quantify with assurance. These estimated levels are below the proposed federal drinking water standards that are designed to protect human health, as indicated on the next page. Also note that the water in your area is generally high in sodium, and persons on a sodium-restricted diet should be aware of this.

With your permission, EPA plans to resample the wells in the near future. We will be contacting you again in the next few months to take additional samples.

Please telephone Stan Vendetti at the Benton-Franklin County Health District at (509) 943-2614, or me at (206) 442-2712 if you have any questions regarding this information. Thank you for your cooperation in this effort.

Sincerely,

Lori Cohen
Superfund Site Manager

cc. Stan Vendetti
Flora Goldstein
Bob Kievit
Marcia Knadle
Leigh Woodruff
John Zillich
Michael Watson

Enclosures

Sample Location: Al Yenney - old well

Sample Date: October 22, 1986

COMPOUNDS DETECTED

Chemical Name	Level Detected*	Federal guideline or standard
1,1,1 Trichloroethane	3 ug/l (estimate)	200 ug/l- proposed standard
Trichloroethene	3 ug/l (estimate)	5 ug/l - proposed standard
Barium	82 ug/l	1000 ug/l
Zinc	85 ug/l (estimate)	5000 ug/l
Iron	97 ug/l (estimate)	300 ug/l
Aluminum	103 ug/l	No standard exists **
Calcium	67,100 ug/l (estimate)	No standard exists **
Magnesium	20,900 ug/l	No standard exists **
Potassium	8,600 ug/l (estimate)	No standard exists **
Sodium	49,400 ug/l (estimate)	No standard exists **
Vanadium	14 ug/l	No standard exists **

* ug/l = micrograms per liter (parts per billion)

** For these compounds for which there is no standard, EPA's regional toxicologist believes these levels do not pose an unacceptable health risk.

Sample Location: Al Yenney - new well

Sample Date: October 22, 1986

COMPOUNDS DETECTED

Chemical Name	Level Detected*	Federal guideline or standard
Trichloroethene	1 ug/l (estimate)	5 ug/l - proposed standard
Barium	75 ug/l	1000 ug/l
Zinc	690 ug/l (estimate)	5000 ug/l
Iron	241 ug/l (estimate)	300 ug/l
Calcium	66,400 ug/l (est.)	No standard exists **
Magnesium	21,100 ug/l	No standard exists **
Potassium	8,600 ug/l (est.)	No standard exists **
Sodium	48,600 ug/l (est.)	No standard exists **
Copper	77 ug/l	1000 ug/l-second. standard ***
Manganese	4 ug/l	50 ug/l - second. standard ***

* ug/l = micrograms per liter (parts per billion)

** For these compounds for which there is no standard, EPA's regional toxicologist believes these levels do not pose an unacceptable health risk.

*** Secondary standards are for odor and color and are not based on health effects.

DEC 24 1986

M/S 525

Deby Rada
3013 East George
Pasco, Washington 99301

Dear Ms. Rada:

The purpose of this letter is to provide you with the results from the Environmental Protection Agency's (EPA) sample of your drinking water well. The sample was taken on October 22, 1986. EPA analyzed the sample for 150 chemical compounds. According to EPA's regional toxicologist, the results show that all of the chemical concentrations are at levels which do not pose an unacceptable health risk.

Most of the chemicals tested for were not detected in the water sample. The chemicals that were detected are listed on the attached sheet. You should know that there were laboratory problems in analyzing for lead, so we do not know the quantity of lead in the sample.

EPA believes it is important to make sure these levels do not increase over time. With your permission, EPA plans to resample the well next year. We will be contacting you again in the next few months to take additional samples.

Please telephone Stan Vendetti at the Benton-Franklin County Health District at 509-943-2614, or me at 206-442-2712 if you have any questions regarding this information. Thank you for your cooperation in this effort.

Sincerely,

Lori Cohen
Superfund Site Manager

Enclosure

bcc. Stan Vendetti
Flora Goldstein
Bob Kievit
Marcia Knadle
Debra Woodruff
Michael Watson

Sample Location: Deby Rada Residence

Sample Date: October 22, 1986

COMPOUNDS DETECTED

Chemical Name	Level Detected	Federal guideline or standard
Barium	90 ug/l	1000 ug/l
Zinc	63 ug/l (estimate)	5000 ug/l
Iron	67 ug/l (estimate)	300 ug/l
Calcium	74,200 ug/l (estimate)	No standard exists**
Magnesium	24,000 ug/l	No standard exists**
Potassium	8760 ug/l (estimate)	No standard exists**
Sodium	344 ug/l (estimate)	No standard exists**
Vanadium	21 ug/l	No standard exists**

* ug/l = micrograms per liter (parts per billion)

** For these compounds for which there is no standard, the regional toxicologist believes these levels do not pose an unacceptable health risk.

DEC 24 1986

M/S 525

Bonnie Brae Trailer Park
R.S. and Jean Lawrence
2508 East Lewis
Pasco, Washington 99301

Dear Mr. and Mrs. Lawrence:

The purpose of this letter is to provide you with the results from the Environmental Protection Agency's (EPA) sample of your drinking water well. The sample was taken on October 22, 1986. EPA analyzed the sample for 150 chemical compounds. According to EPA's regional toxicologist, the results show that all of the chemical concentrations are at levels which do not pose an unacceptable health risk.

Most of the chemicals tested for were not detected in the water sample. The chemicals that were detected are listed on the attached sheet.

Tetrachloroethene, an animal carcinogen, has tentatively been found in your sample, but at a level that is below the concentration at which our laboratory can quantify with assurance. This estimated level, 2 micrograms per liter, is below the federal drinking water standard to be proposed by EPA to protect human health.

You should know that there were laboratory problems in analyzing for lead, so we do not know the quantity of lead in the sample. Also note that the water in your area is generally high in sodium, and persons on a sodium-restricted diet should be aware of this.

EPA believes it is important to make sure the levels of these compounds do not increase over time. With your permission, EPA plans to resample the well in the near future. We will be contacting you again in the next few months to take additional samples.

Please telephone Stan Vendetti at the Benton-Franklin County Health District at (509) 943-2614, or me at (206) 442-2712 if you have any questions regarding this information. Thank you for your cooperation in this effort.

bcc: Stan Vendetti
Flora Goldstein
Bob Kievit
Marcia Knadle
Leigh Woodruff
John Zillich
Michael Watson

Sincerely,

Lori Cohen
Superfund Site Manager

Enclosure

Sample Location: Bonnie Brae Trailer Park

Sample Date: October 22, 1986

COMPOUNDS DETECTED

Chemical Name	Level Detected*	Federal guideline or standard
Tetrachloroethene	2 ug/l (estimate)	5 ug/l - to be proposed as a standard
Barium	55 ug/l	1000 ug/l
Zinc	68 ug/l (estimate)	5000 ug/l
Iron	71 ug/l (estimate)	300 ug/l
Calcium	70,900 ug/l (estimate)	No standard exists**
Magnesium	22,400 ug/l	No standard exists**
Potassium	9,070 ug/l (estimate)	No standard exists**
Sodium	32,200 ug/l (estimate)	No standard exists**
Vanadium	18 ug/l	No standard exists**

* ug/l = micrograms per liter (parts per billion)

** For these compounds for which there is no standard, EPA's regional toxicologist believes these levels do not pose an unacceptable risk to human health.

DEC 2 4 1986

M/S 525

Hommes Hide-A-Way
D.R. Brown
2506 East Lewis
Pasco, Washington 99301

Dear Mr. Brown:

The purpose of this letter is to provide you with the results from the Environmental Protection Agency's (EPA) sample of your drinking water well. The sample was taken on October 22, 1986. EPA analyzed the sample for 150 chemical compounds. According to EPA's regional toxicologist, the results show that all of the chemical concentrations are at levels which do not pose an unacceptable health risk.

Most of the chemicals tested for were not detected in the water sample. The chemicals that were detected are listed on the attached sheet. You should know that there were laboratory problems in analyzing for lead, so we do not know the quantity of lead in the sample. Also note that the water in your area is generally high in sodium, and persons on a sodium-restricted diet should be aware of this.

EPA believes it is important to make sure these levels do not increase over time. With your permission, EPA plans to resample the well next year. We will be contacting you again in the next few months to take additional samples.

Please telephone Stan Vendetti at the Benton-Franklin County Health District at (509) 943-2614, or me at (206) 442-2121 if you have any questions regarding this information. Thank you for your cooperation in this effort.

Sincerely,

Lori Cohen
Superfund Site Manager

Enclosure

bcc. Stan Vendetti
Flora Goldstein
Bob Kievit
Marcia Knadle
Leigh Woodruff
John Zillich
Michael Weber

Sample Location: Hommes Hide-A-Way

Sample Date: October 22, 1986.

COMPOUNDS DETECTED

Chemical Name	Level Detected		Federal guideline or standard
Barium	73 ug/l		1000 ug/l
Zinc	205 ug/l	(estimated)	5000 ug/l
Iron	74 ug/l	(estimated)	300 ug/l
Calcium	64,400 ug/l	(estimated)	No standard exists**
Magnesium	18,200 ug/l		No standard exists**
Potassium	5,040 ug/l	(estimated)	No standard exists**
Sodium	35,500 ug/l	(estimated)	No standard exists**

* ug/l = micrograms per liter (parts per billion)

** For these compounds for which there is no standard, EPA's regional toxicologist believes these levels do not pose an unacceptable health risk.

DEC 24 1986

M/S 525

Larry Dietrich
Pasco Sanitary Landfill
424 Bay
Pasco, Washington 99301

Dear Mr. Dietrich:

The purpose of this letter is to provide you with the results from the Environmental Protection Agency's (EPA) samples of the drinking water well and the monitoring wells at the Pasco Sanitary Landfill. These samples were taken during the week of October 20, 1986.

EPA analyzed the drinking water sample for 150 chemical compounds. According to EPA's regional toxicologist, the results show that all of the chemical concentrations in the drinking water are at levels which do not pose an unacceptable health risk. The laboratory results are enclosed for your review.

The monitoring wells were sampled for 24 inorganic compounds. The results for all of these tests are enclosed. Note that there were laboratory problems in analyzing for lead, so we do not know the quantity of lead in the samples.

As you know, EPA also sampled six drinking water wells and one irrigation well downgradient of the Pasco Sanitary Landfill in the October 1986 sampling effort. The results of these tests are enclosed for your information. In three of those drinking water wells and the irrigation well, several organic solvents were detected at low levels. The source of these compounds has not been identified. However, one possible source is the zones of the landfill previously used for disposal of hazardous materials.

Based on these findings and previous information regarding groundwater contamination in the landfill monitoring wells, EPA recommends that groundwater monitoring downgradient of the landfill be increased to begin to characterize any groundwater contamination plume that may exist. EPA recommends that at least one monitoring well be installed southwest of the landfill, between the landfill and the irrigation well that was sampled by EPA.

In addition, I would like to inform you that EPA plans to take additional samples from several groundwater monitoring wells at the landfill. Specifically, EPA plans to resample monitoring wells at the landfill for volatile organics and lead. This will include a bladder pump/bailer comparison at three wells (EE-2, EE-3, JUB-2) to determine if the sediment in a bailed sample causes inflated volatile organic concentration values analogous to the increased inorganic levels typically associated with sediment-laden samples.

The bladder pump/bailer comparison conducted in October 1986 showed that inorganics which are generally dissolved in groundwater (salts like calcium, magnesium, potassium and sodium) were not significantly affected by bailing. It seems unlikely that solvents dissolved in groundwater would be affected either. However, EPA believes that the possibility should be investigated, as suggested by John Zillich.

EPA will also resample downgradient drinking water wells for volatile organics on a periodic basis. These wells will also be resampled once for lead, since those data were rejected in EPA's quality assurance review.

We will be contacting you early in the new year to arrange for the next sampling effort. At that time, we will also address the final disposal of the drums of waste materials generated during the 1985 E&E sampling effort. I regret that this has not been accomplished to date; Superfund program funds were quite limited last year but are now available to address the disposal issue.

Please call telephone at 206-442-2712 if you have any questions regarding this information. Thank you for your continued cooperation in this effort.

Sincerely,

Lori Cohen
Site Manager

Enclosure

cc. John Zillich

bcc. Stan Vendetti
Flora Goldstein
Bob Kievit
Marcia Knadle
Leigh Woodruff
Mike Watson

DEC 2 4 1986

M/S 525

Tim Tippett
Tippett Land and Mortgage
P.O. Box 3027
Pasco, Washington 98302

Dear Mr. Tippett:

The purpose of this letter is to provide you with the results from the Environmental Protection Agency's (EPA) sample of one irrigation well at NE 1/4 of SE 1/4, T.9 N, R.30 E. This sample was taken on October 23, 1986. EPA analyzed the irrigation well sample for 250 chemical compounds. The analytical results showing the chemicals detected in this sampling effort are attached for your review.

Given the turbulent pumping mechanism of the well, it is surprising that three volatile organic compounds were detected in the sample. Even though these were detected at extremely low levels, it may be an indication that the groundwater actually contains higher levels of these compounds since the water is aerated as it is pumped to the ground surface for use. Aeration reduces the levles of volatile organics in the water. Therefore, sprinkling would further reduce the levels of these compounds.

EPA plans to work with the Department of Ecology to try to identify the source of these constituents found in the water.

Thank you very much for your cooperation in this effort. Please contact Marcia Knadle at 206-442-1641 or me at 206-442-2712 if you have further questions regarding this matter.

Sincerely,

Lori Cohen
Site Manager

bcc. Stan Vendetti
Flora Goldstein
Bob Kievit
Marcia Knadle
Leigh Woodruff
Larry Dietrich
Mike Watson

Enclosures

Sample Location: Tippett irrigation well

Sample Date: October 23, 1986

COMPOUNDS DETECTED

Chemical Name	Level Detected*	Drinking water guideline or standard
1,1 Dichloroethane	2 ug/l (estimate)	
Trichloroethene	1 ug/l (estimate)	5 ug/l - proposed standard
Tetrachloroethene	3 ug/l (estimate)	5 ug/l - to be proposed as a standard
Barium	76 ug/l	1000 ug/l
Zinc	29 ug/l (estimate)	5000 ug/l
Iron	423 ug/l (estimate)	300 ug/l
Calcium	65,100 ug/l (estimate)	No standard exists **
Magnesium	22,600 ug/l	No standard exists **
Potassium	7,830 ug/l (estimate)	No standard exists **
Sodium	44,100 ug/l (estimate)	No standard exists **
Vanadium	29 ug/l	No standard exists **

* NOTE: These standards and guidelines are for drinking water and are provided here for reference only. These do not necessarily apply to water used for irrigation only.

The units for all the data presented here are:

ug/l = micrograms per liter (parts per billion)

** For these compounds for which there is no standard, EPA's regional toxicologist believes these levels do not pose an unacceptable health risk.